

(FILE 'HOME' ENTERED AT 13:10:20 ON 20 MAR 2006)

FILE 'REGISTRY' ENTERED AT 13:10:25 ON 20 MAR 2006

L1 STRUCTURE UPLOADED  
L2 QUE L1  
L3 4999 S L2 FULL  
L4 0 S ADAMANTANE CARBOXYLIC ACID ANILIDE  
L5 0 S ADAMANTANE CARBOXYLIC ACID ANILINE  
L6 STRUCTURE UPLOADED  
L7 QUE L6  
L8 7591 S L6 FULL  
L9 STRUCTURE UPLOADED  
L10 4 S L9 FULL  
L11 STRUCTURE UPLOADED  
L12 16 S L11 FULL  
L13 50250 S ANILIDE  
L14 7634 S ADAMANTYL OR ADAMANTANE  
L15 23 S L13 AND L14  
L16 0 S ADAMANTANECARBOXYLIC ACID ANILIDE  
L17 293 S ADAMANTANECARBOXYLIC ACID  
L18 0 S ADAMANTANECARBOXYLIC ACID ANILINE  
L19 50250 S ANILIDE  
L20 29317 S ANILINE  
L21 0 S ADAMANTYLCARBOXYLIC ACID ANILINE  
L22 0 S ADAMANTYLCARBOXYL ANILINE  
L23 0 S ADAMANTANECARBOXYL ANILINE  
L24 0 S ADAMANTANECARBOXYLANILINE  
L25 0 S ADAMANTANECARBOXYLANILIDE  
L26 0 S L17 AND (ANILIDE OR ANILINE)  
L27 1901465 S CARBOXYLIC ACID  
L28 0 S L15 AND L27  
L29 STRUCTURE UPLOADED  
L30 0 S L29 FULL  
L31 0 S (ADAMANTANE OR ADAMANTYL) AND CARBOXYLIC ACID AND (ANILINE OR  
L32 0 S (ADAMANTANE OR ADAMANTYL) AND CARBOXY AND (ANILINE OR ANILIDE  
L33 6 S ADAMANTANECARBOXY

=>

ANSWER 1 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:801603 CAPLUS

DN 141:304291

TI Positive **photoresist** compositions showing high transparency to 157-nm F2 excimer lasers and forming patterns with small line-edge roughness and less scums

IN Kanda, Hiromi; Mizutani, Kazuyoshi; Kanna, Shinichi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 68 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004271630	A2	20040930	JP 2003-58733	20030305
PRAI	JP 2003-58733		20030305		

AB The compns. comprise (A) resins having (A1) [R1R2CCR3(OR4)] units [R1-R3 = H, (fluoro)alkyl, F; R4 = H, (fluoro)alkyl, L1X; X = polar group, alkaline developer-soluble group, group solubilized in alkaline developers by acids; L1

=

single bond, divalent linking group] and (A2) [R5R6CCR7(CONR8R9)] units [R5-R7 = same as R1; R8, R9 = H, (fluoro)alkyl, L2Y; Y = same as X; L2 = same as L1] and (B) compds. generating acids by (actinic ray) radiation.

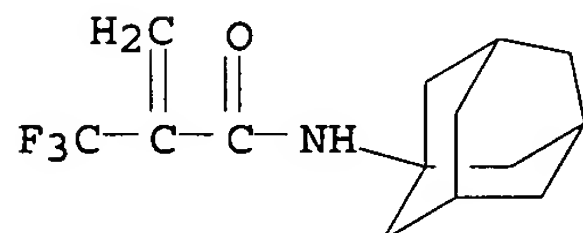
IT 679804-95-6P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(monomers; pos. **photoresist** compns. showing high transparency to F2 excimer lasers and forming patterns with small line-edge roughness and less scums)

RN 679804-95-6 CAPLUS

CN 2-Propenamide, N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl-2-(trifluoromethyl)- (9CI)  
(CA INDEX NAME)



L24 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:753223 CAPLUS

DN 141:268557

TI Positive **resist composition** and method of forming a resist pattern using the same

IN Sasaki, Tomoya

PA Fuji Photo Film Co., Ltd., Japan

SO Eur. Pat. Appl., 80 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1457819	A2	20040915	EP 2004-4961	20040303
	EP 1457819	A3	20050622		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
	JP 2004279471	A2	20041007	JP 2003-67010	20030312
	US 2006035165	A1	20060216	US 2004-796083	20040310
PRAI	JP 2003-67010	A	20030312		

AB A pos. **photoresist** composition comprises (A) a resin comprising specific repeating units and coming to have enhanced solubility in an alkaline developing solution by the action of an acid and (B) a compound generating an acid by the action of actinic rays or a radiation.

IT 756532-38-4P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(pos. **photoresist** composition for forming resist pattern)

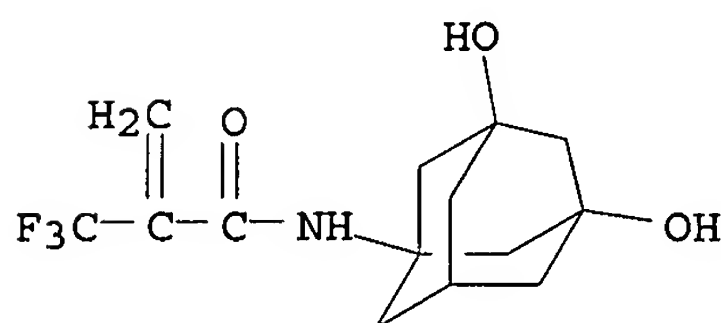
RN 756532-38-4 CAPLUS

CN 2-Propenamide, N-(3,5-dihydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)-2-(trifluoromethyl)-, polymer with 1-ethenyl-3,5-bis[2,2,2-trifluoro-1-(methoxymethoxy)-1-(trifluoromethyl)ethyl]benzene (9CI) (CA INDEX NAME)

CM 1

CRN 677354-83-5

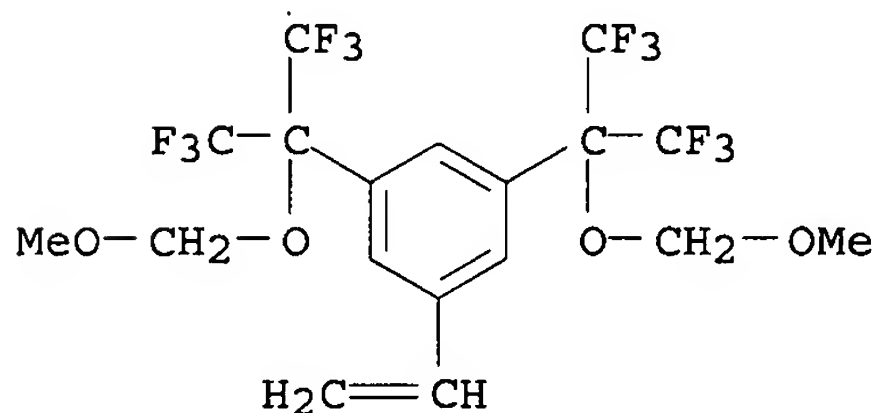
CMF C14 H18 F3 N O3



CM 2

CRN 585573-59-7

CMF C18 H16 F12 O4



L24 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:631975 CAPLUS

DN 141:181966

TI Proton-neutralizing agent and **photoresist** containing the same

IN Kuzuha, Noboru

PA Aibaitsu K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004217867	A2	20040805	JP 2003-9721	20030117
PRAI	JP 2003-9721		20030117		

AB The agent well neutralizes proton generated in dark during the storage of **photoresist** and is inert under exposure of the resist.

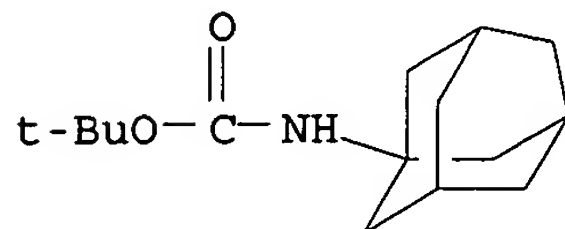
IT 151476-40-3P 733037-96-2P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(proton-neutralizing agent and photoresist containing the same)

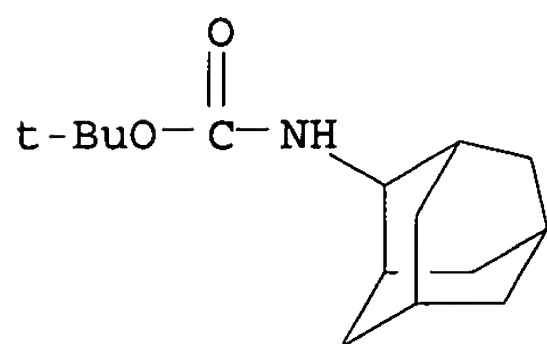
RN 151476-40-3 CAPLUS

CN Carbamic acid, tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



RN 733037-96-2 CAPLUS

CN Carbamic acid, tricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)



L24 ANSWER 4 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:307716 CAPLUS

DN 140:347549

TI Positive-working resist binder resins having alicyclic hydrocarbon group

IN Sasaki, Tomoya; Mizutani, Kazuyoshi; Kanna, Shinichi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 95 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

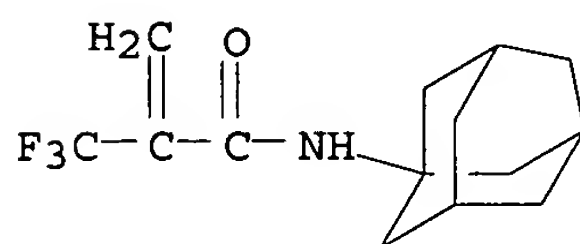
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004117535	A2	20040415	JP 2002-277570	20020924
PRAI	JP 2002-277570		20020924		

AB The compns., which show high transparency to 157-nm F2 excimer laser, high sensitivity, high resolution, and good dry-etching resistance, contain (A) resins which have (a) a repeating unit I [Ra1-Ra3 H, halo, cyano, alkyl; Ra4 = H, halo, OH, cyano, alkyl, aryl, alkoxy, aralkyl; n = 1-5; Z = C<sub>≥</sub>7 (n + 2)-valent alicyclyl; Q = acid-decomposable group; L1, L2 = direct bond, linking group] and (b) ≥1 repeating unit selected from (CRb1Rb2CRb3b4) (Rb1-Rb4 = H, halo, alkyl; ≥2 of Rb1-Rb4 = F), [CRc1Rc2CRc3(CO2R1)] (Rc1-Rc3 = H, F, Cl, fluoroalkyl, cyano; ≥1 of Rc1-Rc3 = group other than H; R1 = H, acid-decomposable group, other organic group), [CRd1Rd2CRd3(CONR2R3)] (Rd1-Rd3 = any group given for Rc1-Rc3; R2, R3 = H, alkyl, cycloalkyl, aryl, aralkyl), [CRe1Re2CRe3(CN)] (Re1-Re3 = any group given for Rc1-Rc3), [CRf1Rf2CRf3(SO2Z1R6)] (Rf1-Rf3 = any group given for Rc1-Rc3; Z1 = direct bond, O, NR7; R6 = H, alkyl, cycloalkyl, aryl, aralkyl; R7 = H, alkyl, cycloalkyl), and [CRg1(CO2Y4)CRg3(CO2Y3)] (Rg1, Rg3 = H, halo, cyano, alkyl; Y3, Y4 = H, acid-decomposable group, other organic group) and show increased solubility in an alkaline developer

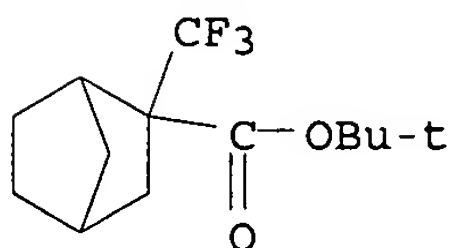
upon

action of acids and (B) compds. which generate acids upon irradiation with actinic rays or radiation.

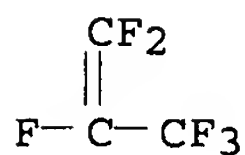
IT 679804-96-7P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (pos.-working resists with high sensitivity to F2 excimer laser and good dry-etching resistance containing binder resins which have acid-decomposable group via alicyclic structure)  
 RN 679804-96-7 CAPLUS  
 CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 5(or 6)-(ethenyloxy)-2-(trifluoromethyl)-, 1,1-dimethylethyl ester, polymer with 1,1,2,3,3,3-hexafluoro-1-propene and N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl-2-(trifluoromethyl)-2-propenamide (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 679804-95-6  
 CMF C14 H18 F3 N O



CM 2  
 CRN 679804-76-3  
 CMF C15 H21 F3 O3  
 CCI IDS



CM 3  
 CRN 116-15-4  
 CMF C3 F6



L24 ANSWER 5 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 2004:291622 CAPLUS  
 DN 140:329533  
 TI Positive-working photoresist composition containing specific resin  
 IN Sasaki, Tomoya; Mizutani, Kazuyoshi; Kanna, Shinichi  
 PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 83 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004109834	A2	20040408	JP 2002-275241	20020920
PRAI	JP 2002-275241		20020920		

AB The title composition contains aresin increasing the solubility in an alkali solution

by an acid and an actinic ray- or radiation sensitive acid-generator, wherein the resin has repeating unit  $[-C(R1)(R2)-C(R3)(-O-L1-[C(C(R21R22R23))(C(R24R25R26))]n-L2-C(OZa)(C(R27R28R29))(C(R30R31R32)))]$  ( $r1-3 = H, halo, cyano, alkyl$ ;  $R21-32 = H, F, alkyl$ ;  $L1-2 = single bond, 2-valent connecting group$ ;  $n = 0, 1$ ) and repeating unit containing the structure  $-[C(R4)(R5)]m-Z1-(X)p$  ( $R4-5 = alkyl$ ;  $Z1 = (p+1)-valent alicyclic hydrocarbon$ ;  $X = F, Cl, OH< etc.$ ;  $m = 0, 1$ ;  $p = integer 1-4$ ). Composition is suitable for exposure beam of  $\leq 160$  nm and show good characteristics on development, image formation, dry etching resistance, etc.

IT 677354-85-7P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(resin in pos.-working photoresist composition)

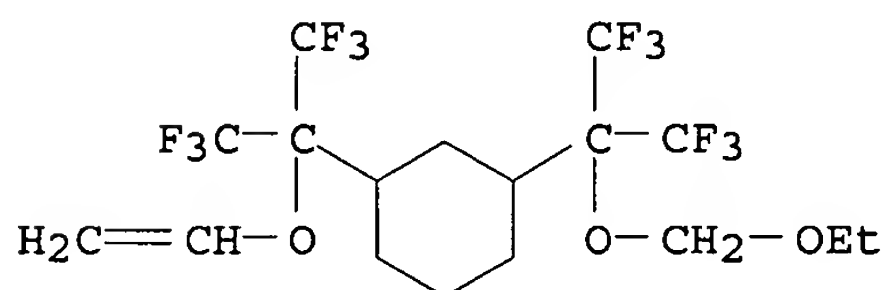
RN 677354-85-7 CAPLUS

CN 2-Propenoic acid, 2-(trifluoromethyl)-, 2-methyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl ester, polymer with N-(3,5-dihydroxytricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl)-2-(trifluoromethyl)-2-propenamide, 3-[1-(ethenyloxy)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]- $\alpha, \alpha$ -bis(trifluoromethyl)cyclohexanemethanol and 1-[1-(ethenyloxy)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]-3-[1-(ethoxymethoxy)-2,2,2-trifluoro-1-(trifluoromethyl)ethyl]cyclohexane (9CI)  
(CA INDEX NAME)

CM 1

CRN 677354-84-6

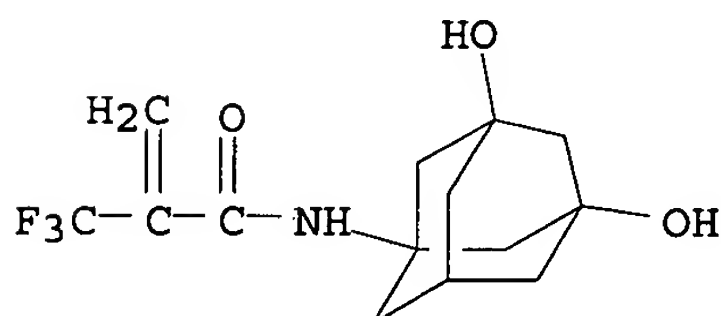
CMF C17 H20 F12 O3



CM 2

CRN 677354-83-5

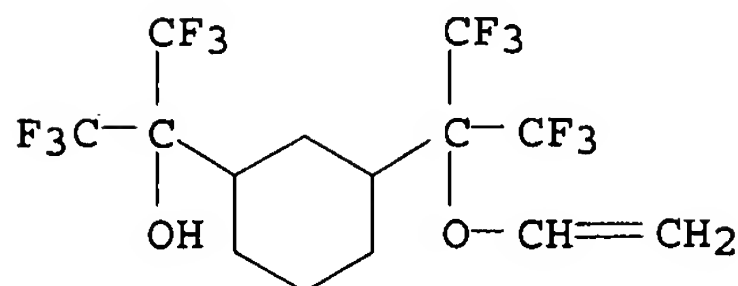
CMF C14 H18 F3 N O3



CM 3

CRN 677354-82-4

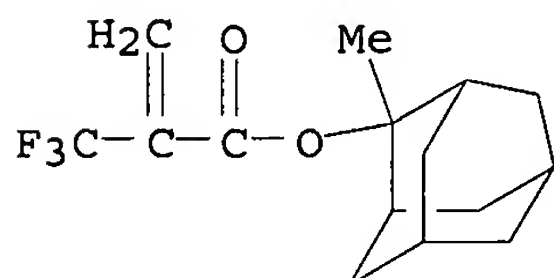
CMF C14 H14 F12 O2



CM 4

CRN 188739-86-8

CMF C15 H19 F3 O2



L24 ANSWER 6 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2004:219910 CAPLUS

DN 140:278422

TI Chemical amplification type **resist composition**

IN Takata, Yoshiyuki; Yoshida, Isao; Nakanishi, Hirotooshi

PA Sumitomo Chemical Company, Limited, Japan

SO U.S. Pat. Appl. Publ., 22 pp.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004053171	A1	20040318	US 2003-657149	20030909
	CN 1488996	A	20040414	CN 2003-156561	20030909
	JP 2004126572	A2	20040422	JP 2003-319438	20030911
PRAI	JP 2002-266539	A	20020912		

OS MARPAT 140:278422

AB The present invention provides a chemical amplification type pos. resist composition comprising (1) a nitrogen containing compound of the formula A(-X-N(R13)C(=O)R14)n or A(-X-C(=O)N(R15)R16)n (A = alicyclic hydrocarbon group; X = C1-4 alkylene, single bond; R13-16 = H, C1-12 alkyl, C3-12 cycloalkyl, C1-12 haloalkyl, etc.; n = 1-5); (2) resin which contains a structural unit having an acid labile group and which itself is insol. or poorly soluble in an alkali aqueous solution but becomes soluble in an alkali aqueous solution

by the action of an acid; and (3) an acid generator of the formula I (Q1-5 = H, hydroxyl, C1-12 alkyl, alkoxy; Z+ = II (P1-3 = H, hydroxyl, C1-6 allyl and alkoxy), III (P4,5 = H, hydroxyl, C1-6 allyl and alkoxy), P6P7S+-CH(P8)C(=O)P9 (P6,7 = C1-6 alkyl, C3-10 cycloalkyl, etc.; P8 = H; P9 = C1-6 alkyl, C3-10 cycloalkyl, aromatic group, etc.)).

IT 133216-43-0P 187868-22-0P

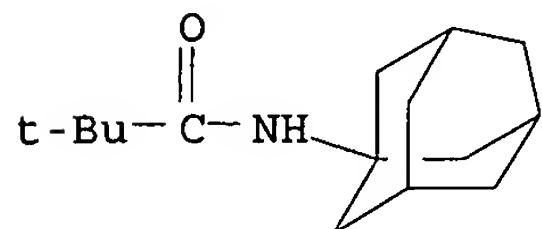
RL: SPN (Synthetic preparation); TEM (Technical or engineered material)

use); PREP (Preparation); USES (Uses)

(chemical amplification type resist composition containing)

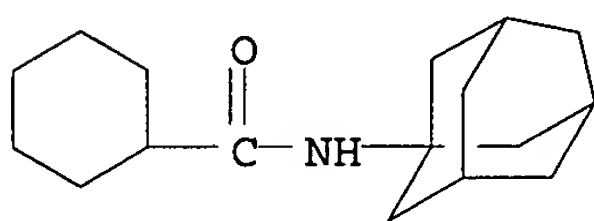
RN 133216-43-0 CAPLUS

CN Propanamide, 2,2-dimethyl-N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl- (9CI) (CA INDEX NAME)



RN 187868-22-0 CAPLUS

CN Cyclohexanecarboxamide, N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl- (9CI) (CA INDEX NAME)



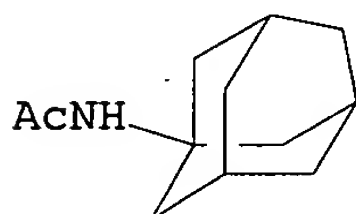
IT 880-52-4

RL: TEM (Technical or engineered material use); USES (Uses)

(chemical amplification type resist composition containing)

RN 880-52-4 CAPLUS

CN Acetamide, N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl- (9CI) (CA INDEX NAME)



L24 ANSWER 7 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:671498 CAPLUS

DN 139:188320

TI Positive photoresists showing superior transparency to 157-nm light and excellent sensitivity

IN Sasaki, Tomoya; Mizutani, Kazuyoshi; Kanna, Shinichi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 46 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003241381	A2	20030827	JP 2002-46284	20020222
PRAI	JP 2002-46284		20020222		

AB The photoresists, useful for F2 excimer laser lithog., comprise (A) resins increasing alkali solubility upon acid action and having repeating unit CR<sub>1</sub>R<sub>2</sub>CR<sub>3</sub>(L<sub>1</sub>XNHR<sub>4</sub>) (R<sub>1</sub>-R<sub>3</sub> = H, Cl, CN, Me, F, fluoroalkyl, where ≥1 of them is F or fluoroalkyl; L<sub>1</sub> = single bond, bivalent bridging group; X = CO, SO<sub>2</sub>; R<sub>4</sub> = monovalent organic group) and (B) radiation-sensitive acid generators.

IT 581804-50-4P 581804-51-5P 581804-54-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material



use); PREP (Preparation); USES (Uses)

(binders; chemical amplified pos. photoresists containing fluoro-containing acid-labile binders showing high transparency to 157-nm light)

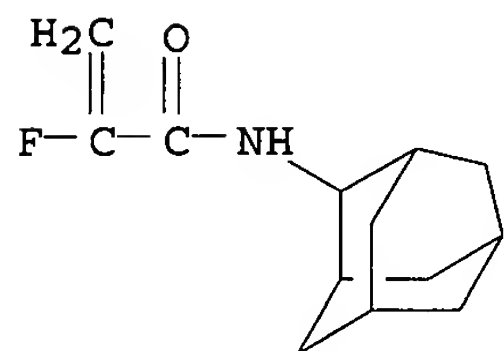
RN 581804-50-4 CAPLUS

CN 2-Propenamide, 2-fluoro-N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl-, polymer with 1-(1,1-dimethylethoxy)-4-ethenylbenzene (9CI) (CA INDEX NAME)

CM 1

CRN 581804-48-0

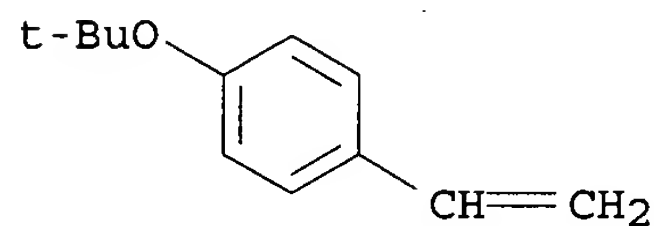
CMF C13 H18 F N O



CM 2

CRN 95418-58-9

CMF C12 H16 O



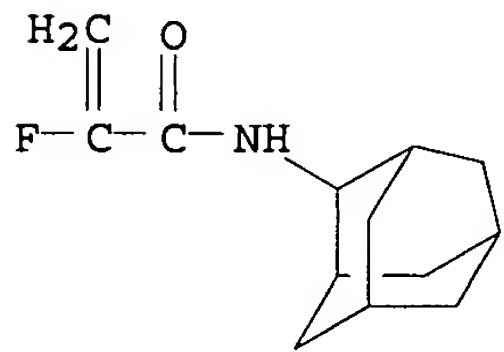
RN 581804-51-5 CAPLUS

CN 2-Propenamide, 2-fluoro-N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl-, polymer with 1-cyclohexyl-4-[2-[1-(4-ethenylphenoxy)ethoxy]ethoxy]benzene (9CI) (CA INDEX NAME)

CM 1

CRN 581804-48-0

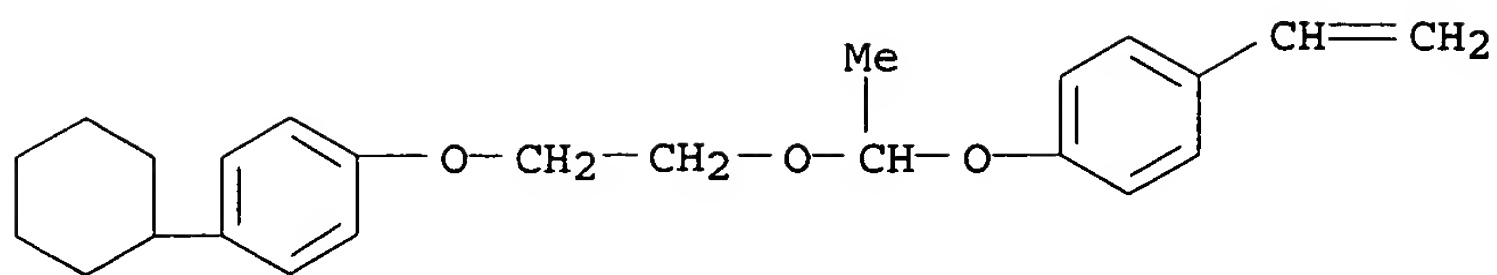
CMF C13 H18 F N O



CM 2

CRN 326591-95-1

CMF C24 H30 O3



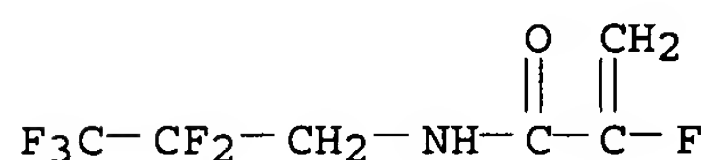
RN 581804-54-8 CAPLUS

CN 2-Propenamide, 2-fluoro-N-(2,2,3,3,3-pentafluoropropyl)-, polymer with N-(2-methyltricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl)-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 581804-53-7

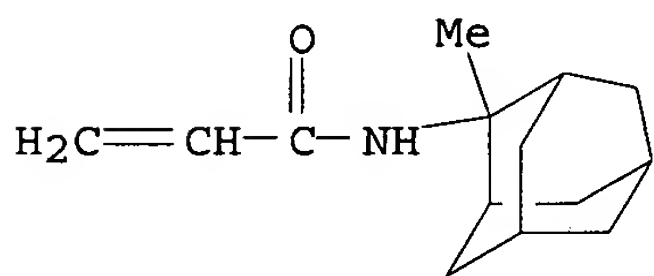
CMF C6 H5 F6 N O



CM 2

CRN 581804-52-6

CMF C14 H21 N O



IT 581804-48-0P

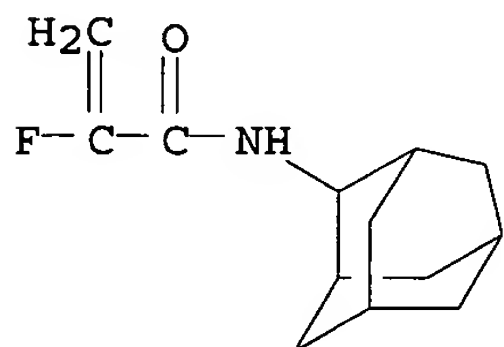
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(chemical amplified pos. photoresists containing fluoro-containing acid-labile

binders showing high transparency to 157-nm light)

RN 581804-48-0 CAPLUS

CN 2-Propenamide, 2-fluoro-N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-2-yl- (9CI) (CA INDEX NAME)



L24 ANSWER 8 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:900855 CAPLUS

DN 138:9649

TI Alicyclic hydrocarbyl compounds, their alkali-insoluble polymers, and radiation-sensitive polymer compositions

IN Takao, Yasuyuki; Yamaoka, Tsugio; Seyano, Akimasa; Murata, Makoto  
 PA JSR Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 29 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002338629	A2	20021127	JP 2001-143899	20010514
PRAI	JP 2001-143899		20010514		

OS MARPAT 138:9649

AB The compds. comprise  $\text{CH}_2:\text{CR}_2\text{C}(:\text{O})\text{NR}_1\text{C}(:\text{O})\text{CR}_3:\text{CH}_2$  (I;  $\text{R}_1 = \text{C}_4\text{-20}$  alicyclic hydrocarbyl;  $\text{R}_2, \text{R}_3 = \text{H}, \text{C}_1\text{-3 alkyl}$ ). The polymers, prepared by polymerization of

I and copolymerizable organic compds. having acid-dissociating groups, show alkali solubility in dissociation of the acid-dissociating groups by acids.

The

compns. contain the polymers and radiation-sensitive acid generators. The compns. show high transparency for far UV light, good thermal stability, and high dry etching resistance.

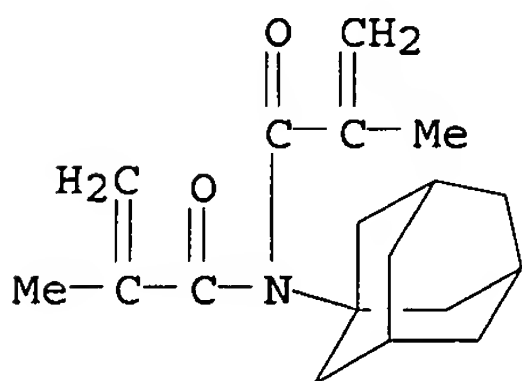
IT 476677-46-0P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(polymers of alicyclic hydrocarbons with good thermal stability for far-UV resists)

RN 476677-46-0 CAPLUS

CN 2-Propenamide, 2-methyl-N-(2-methyl-1-oxo-2-propenyl)-N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl- (9CI) (CA INDEX NAME)



IT 476677-48-2DP, reaction products with dihydropyran

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(polymers of alicyclic hydrocarbons with good thermal stability for far-UV resists)

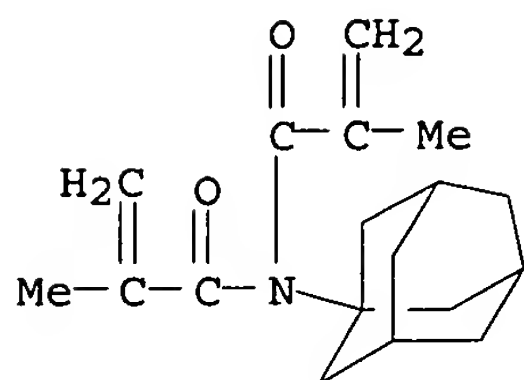
RN 476677-48-2 CAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 2-methyl-N-(2-methyl-1-oxo-2-propenyl)-N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl-2-propenamide (9CI) (CA INDEX NAME)

CM 1

CRN 476677-46-0

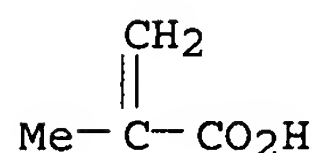
CMF C18 H25 N O2



CM 2

CRN 79-41-4

CMF C4 H6 O2



L24 ANSWER 9 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:480050 CAPLUS

DN 137:70509

TI Maleimide-type polymers and chemically amplified photoresist compositions therewith

IN Horai, Akira; Funaki, Katsunori

PA Daicel Chemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002179744	A2	20020626	JP 2000-378769	20001213
PRAI	JP 2000-378769		20001213		

AB The photoresists, showing excellent dry etching resistance and adhesion to substrates, contain maleimide-type polymers bearing I [Z = (substituted) polycyclic hydrocarbon ring; X = alkylene; n = 0, 1] and photoacid generators.

IT 54395-92-5P, N-1-Adamantylmaleamic acid

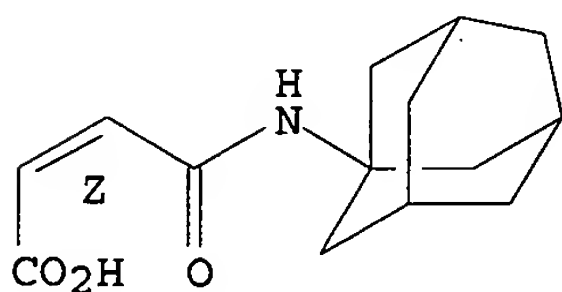
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(adamantylmaleimide-containing polymers for chemical amplified photoresists with superior etching resistance)

RN 54395-92-5 CAPLUS

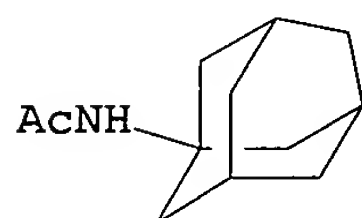
CN 2-Butenoic acid, 4-oxo-4-(tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-ylamino)-, (Z)- (9CI)  
(CA INDEX NAME)

Double bond geometry as shown.



L24 ANSWER 10 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:806417 CAPLUS  
 DN 134:200423  
 TI Development of advanced ArF resist using alicyclic methacrylate copolymer:  
 the optimum quenchers for this copolymer  
 AU Wakisaka, Yukiya; Fujiwara, Tadayuki; Tooyama, Masayuki; Kuwano, Hideaki;  
 Nishida, Koji  
 CS Corporate Research Labs., Mitsubishi Rayon Co., Ltd., Otake, Hiroshima,  
 Japan  
 SO Proceedings of SPIE-The International Society for Optical Engineering  
 (2000), 3999(Pt. 2, Advances in Resist Technology and Processing XVII),  
 1088-1099  
 CODEN: PSISDG; ISSN: 0277-786X  
 PB SPIE-The International Society for Optical Engineering  
 DT Journal  
 LA English  
 AB The authors have investigated alicyclic methacrylate copolymers for pos.  
 ArF resist. The resist utilizing developed copolymer had high sensitivity  
 and high resolution When any quenchers were not added, the limited resolution  
 of the developed resist was by 0.14  $\mu\text{m}$  L/S. The authors carried out  
 the investigation of quencher in order to improve the resolution of the  
 resist. The amide compds. were effective as quenchers for this system,  
 and a certain kind of an amide compound made the resist profiles good. The  
 authors also studied the relationship between the resist performance and  
 the basicity or the polarity of the basic organic compds. used as quencher.  
 IT 880-52-4, N-(1-Adamantyl)acetamide  
 RL: PRP (Properties)  
 (quencher; quencher polarity effect on lithog. performance of advanced  
 ArF chemical amplified **photoresist** based on alicyclic  
 methacrylate copolymer)  
 RN 880-52-4 CAPLUS  
 CN Acetamide, N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl- (9CI) (CA INDEX NAME)



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L24 ANSWER 11 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN  
 AN 1998:590836 CAPLUS  
 DN 129:283430  
 TI Positive-working photosensitive composition containing acid generator and  
 polymer having adamantyl group  
 IN Aogo, Toshiaki; Sato, Kenichiro; Tan, Shiro  
 PA Fuji Photo Film Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 39 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10239847	A2	19980911	JP 1997-46000	19970228
	US 6042991	A	20000328	US 1998-25451	19980218
	US 6416925	B1	20020709	US 2000-497281	20000202
PRAI	JP 1997-33958	A	19970218		
	JP 1997-46000	A	19970228		
	US 1998-25451	A3	19980218		

AB The title composition contains a compound generating acid upon active ray or

*SPIE TRI-524*  
*1962-1971*  
*Journal*

*SPIE TR 165. P 54*

radiation irradiation and a resin having  $\geq 1$  repeating unit containing an adamantyl group I, II, or III [R1, R2, R5, R8, R9 = H, halo, CN, alkyl, haloalkyl; R4, R7, R10 = halo, CN, (substituted) alkyl, (substituted) alkenyl, (substituted) alkynyl, COOR11; R3, R6, R11 = H, (substituted) alkyl, (substituted) monocyclic or polycyclic cycloalkyl, (substituted) alkenyl, group that is decomposed by the action of acid to increase the solubility in alkaline developing solns.; X1-5 = single bond, divalent alkylene,

cycloalkylene, O, S, NR12R13; R12 = H, alkyl, monocyclic or polycyclic cycloalkyl, alkenyl; R13 = single bond or divalent alkylene, cycloalkylene or alkenylene which may have ether, ester, amido, urethane or ureido group; l, m, n = 0-3] and  $\geq 1$  group that is decomposed by the action of acid to increase the solubility in alkaline developing solns. The composition shows

high sensitivity toward light of wavelength  $\leq 250$  nm, especially  $\leq 220$  nm, and high solubility in solvents and provides high resolution patterns with good dry etch resistance.

IT 213820-24-7P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(pos.-working photosensitive composition containing acid generator and polymer

having adamantyl group)

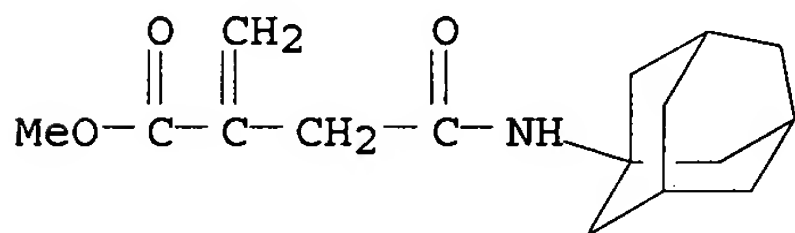
RN 213820-24-7 CAPLUS

CN 2-Pentenedioic acid, polymer with 1-methylcyclohexyl 2-methyl-2-propenoate and methyl 2-methylene-4-oxo-4-(tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-ylamino)butanoate (9CI) (CA INDEX NAME)

CM 1

CRN 213820-23-6

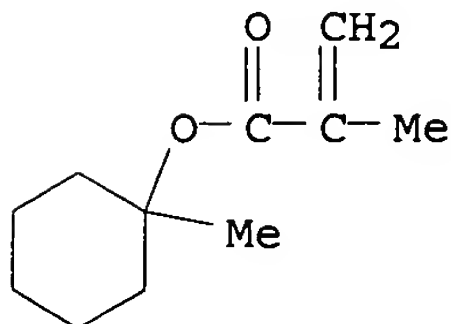
CMF C16 H23 N O3



CM 2

CRN 76392-14-8

CMF C11 H18 O2



CM 3

CRN 1724-02-3

CMF C5 H6 O4

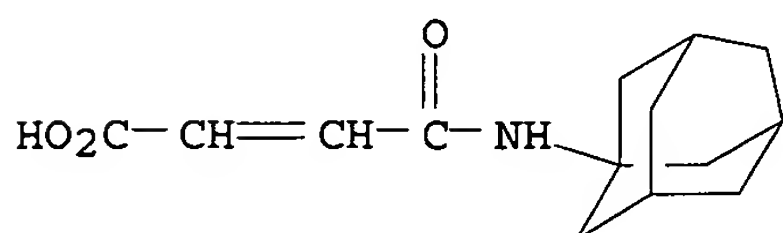


IT 57277-38-0P

RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation);  
 RACT (Reactant or reagent)  
 (preparation and polymerization of)

RN 57277-38-0 CAPLUS

CN 2-Butenoic acid, 4-oxo-4-(tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-ylamino) - (9CI) (CA  
 INDEX NAME)



L24 ANSWER 12 OF 12 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:620074 CAPLUS

DN 124:131526

TI Positively working **resist composition** containing  
 carboxamide compound

IN Oie, Masayuki; Tanaka, Hideyuki; Abe, Nobunori; Misawa, Mari

PA Nippon Zeon Co, Japan

SO Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07092681	A2	19950407	JP 1993-312672	19931118
PRAI	JP 1993-312672	A	19931118		
	JP 1993-185472		19930629		

AB The composition contains (A) an acid-generating compound by active  
 beam-irradiation,

(B) a polymer having a structure unit with an acid-unstable group to  
 cleave and be alkali-soluble in the presence of an acid from A, and (C) a  
 carboxamide compound, optionally containing (D) an alkali-soluble phenolic  
 resin.

The composition is useful for fine processing in manufacture of semiconductor  
 devices. The composition showed high sensitivity and gave high-resolution  
 images

with etching resistance and storage stability.

IT 19026-84-7

RL: TEM (Technical or engineered material use); USES (Uses)

(pos.-working resist composition containing carboxamide compound for  
 manufacture of  
 semiconductor device)

RN 19026-84-7 CAPLUS

CN Benzamide, N-tricyclo[3.3.1.1<sup>3,7</sup>]dec-1-yl- (9CI) (CA INDEX NAME)

